

In The Claims:

1. Cancelled.
2. Cancelled.
3. Cancelled.
4. Cancelled.
5. Cancelled.
6. Cancelled.
7. Cancelled.
8. Cancelled.
9. Cancelled.
10. Cancelled.
11. Cancelled.
12. A system for forming an injection molded plastic part in a mold comprising:

a mold, said mold having a part-forming mold cavity therein; sealing members for sealing said mold cavity and preventing gas leakage therefrom;

a first gas source for supplying a gas into the mold cavity to pre-pressurize the mold cavity to a first pre-determined value;

a vent valve for removing said gas from the mold cavity as desired;

a gas control mechanism for maintaining the gas pressure in the mold cavity at a second pre-determined value;

a source for injecting molten plastic material into the mold cavity; a gas pin assembly for supplying gas into the plastic material in the mold cavity; and

a second gas source for supplying gas to said gas pin assembly.

13. The system as recited in claim 12 further comprising:

at least one ejector pin assembly for ejecting the completed plastic part from the mold cavity.

14. The system as recited in claim 12 wherein said first and second gas source are the same source.

15. The system as recited in claim 12 wherein said gas control mechanism comprises an infinitely adjustable gas control valve.